

Remarks

This communication is considered fully responsive to the Office Action. Claims 1-21 are pending. Claims 15-21 are withdrawn. Claims 1-14 were examined. Claims 1-14 stand rejected. No claims are amended. No claims are canceled. No new claims have been added. Reexamination and reconsideration of the pending claims are respectfully requested.

Specification

Applicant has amended the specification in accordance with the Examiner's suggestion.

Restriction Requirement

Applicant affirms the election of group I/species I, including claims 1-14.

Claim Rejections - 35 U.S.C. 102(b)

The Office Action rejected claims 1-14 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,826,004 to Albrecht, et al. ("Albrecht"). Applicant respectfully traverses this rejection.

Claim 1 recites "a backplane interface operable to convert electrical data signals from the removable hard disk drives electrically connected at the backplane to optical signals for delivery to a system controller" (emphasis added). Albrecht does not disclose at least these recitations.

The Office Action relies on items 105, 106, and 116 in Albrecht as disclosing these recitations. However, these items are optical sources and corresponding sensor and have nothing to do with converting electrical data signals from removable hard disk drives to optical signals. Albrecht describes optical sources 105 and 106 and sensors 115 and 116 in detail at col. 7, line 43 to col. 8, line 7:

Optical sources 105 and 106 are mounted at openings 107 and 108 of a top plate 109 of the transfer station. Sensors 115 and 116 are mounted on a printed circuit board (PCB) 118 for sensing the optical sources 105 and 106, respectively. The optical sources 105 and 106 preferably comprise an infrared source, such as an LED optical source, which is focused, providing a focused beam directed toward the respective sensor 115 and 116, which preferably comprise infrared optical sensors.

Optical source 105 and corresponding sensor 115 are located near a receiving slot 120 of the transfer station into which the cartridge is inserted. Thus, as the cartridge, whether it is a tape cartridge 10 or a portable data storage cartridge 40, the cartridge interrupts the beam, such that the sensor 115 detects that a cartridge is being inserted into the receiver 103. Stops 121 and 122 are provided at the end of travel of receiver 103, and comprise the point at which the cartridge is fully received into the transfer station.

Optical source 106 is located at, and directed toward the location of the leader block hole 19 of a tape cartridge 10 and the location of the blocking portion 42 of a portable data storage cartridge 40 when a cartridge is at the end of travel in the receiver. The corresponding sensor 116 is positioned at the location of the leader block hole and blocking portion at the opposite side of the cartridge

from the optical source 116. The sensor 116 may be enabled by the sensor 115, and senses the blockage of the optical source 106 by a cartridge shell blocking portion, thereby identifying the differentiated identification of the data storage cartridge, and indicating the presence of the portable data storage cartridge 40 at the end of travel in the receiver 103.

Applicant is not using optical sensors to detect a cartridge being inserted into a receiver by interrupting a beam. Instead, Applicant's claims enable hard disk drives to be used in an automated storage system even if the distance between the hard disk drives and the system controller exceeds the recommended distance for electrical data signal transmission. The electrical data signals are converted to optical signals, which support high data transfer rates over greater distances than electrical signals. In addition, the use of optical signals reduces electromagnetic interference (EMI) that may be generated by electrical signals. Optical signal conversion also allows any number of devices to be connected simultaneously, limited only by the connectivity provided. See, e.g., para. [0015] of Applicant's Specification.

Applicant understands that the Examiner is entitled to a broad interpretation of the claim recitations, but Applicant believes that in this case the distinction is clear based on the claim originally recited. Applicant respectfully requests the Examiner to call the below-listed attorney if further amendment is believed to be necessary in order to better recite this difference.

For at least the foregoing reasons claim 1 is believed to be allowable over the cited references and Applicant respectfully requests withdrawal of the rejection of claim 1.

Claims 2-9 depend from claim 1, which is believed to be allowable. Therefore, claims 2-9 are also believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 2-9 is respectfully requested.

In addition, claims 2-9 include further recitations that are not believed to be disclosed by Albrecht. Indeed, the Office Action simply copied the claim recitations and stated that these were rejected, without providing any reasoning or support in the reference. Therefore, Applicant believes the rejection of these claims is incomplete.

Claim 10 recites “a backplane interface operable to convert electrical data signals from the removable hard disk drives electrically connected at the backplane to optical signals for delivery to the system controller.” At least these recitations are not disclosed by Albrecht, as discussed above for claim 1, and Applicant respectfully requests withdrawal of the rejection of claim 10.

Claims 11-14 depend from claim 10, which is believed to be allowable. Therefore, claims 11-14 are also believed to be allowable for at least the same reasons as claim 10. Withdrawal of the rejection of claims 11-14 is respectfully requested.

In addition, claims 11-14 include further recitations that are not believed to be disclosed by Albrecht. Again, the Office Action simply copied the claim recitations and stated that these were rejected, without providing any reasoning or support in the reference. Therefore, Applicant believes the rejection of these claims is incomplete.

Conclusion

The Applicant respectfully requests that a timely Notice of Allowance be issued in this matter.

Respectfully Submitted,

/Mark D. Trenner/

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By: _____

Mark D. Trenner
Reg. No. 43,961
(720) 221-3708